Commonwealth of Massachusetts

Division of Fisheries & Wildlife

MassWildlife

Wayne F. MacCallum, *Director*

August 19, 2010

Paul Dethier
Town of Amherst, DPW
586 South Pleasant Street
Amherst, MA 01002

RE:		
	Applicant:	Paul Dethier, Town of Amherst DPW
	Project Location:	Old Belchertown Road (Map 21B, Parcel 8)
	Project Description:	Old Amherst Landfill Modifications
	NHESP File No.:	**10-27804**

Dear Paul Dethier,

The Natural Heritage & Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries & Wildlife has reviewed revised plans (dated May 4, 2010, revised July 12, 2010), pursuant to the Massachusetts Endangered Species Act (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00) (MESA).

Based on the information provided and the information contained in our database, the NHESP finds that this project, as currently proposed, **must be conditioned in order to avoid a prohibited "take"** of state-listed species (321 CMR 10.18(2)(a)). **To avoid a prohibited "take", the project must comply with the conditions noted below:**

- All proposed Activities are subject to the Rare Species Monitoring and Protection Plan for the Old Amherst Landfill (submitted to NHESP 8/5/2010).
- If Grasshopper Sparrows or other State-listed Rare Species are documented we request that a Rare Species Observation Form is submitted to NHESP within 10 days of the first observation of a given State-listed Species.

Provided the applicant complies with the above-noted conditions and there are no changes to the project plans, no further review of this project is necessary by the NHESP. If it is not possible to comply with the conditions, or if project plans change, the applicant must contact the NHESP prior to any work for further guidance. We note that all work is subject to the anti-segmentation provisions (321 CMR 10.16) of the MESA.

Please note that this determination addresses only the matter of state-listed species and their habitats. This project may be subject to further review if no physical work is commenced within three years from the date of issuance of this determination, or if there is a change to the project. If you have any questions regarding this letter please contact David J. Paulson, Consulting Biologist, at (508) 389-6366 (david.paulson@state.ma.us).

Sincerely,

Thomas W. French

Thomas W. French, Ph.D.
Assistant Director

Commonwealth of Massachusetts
Division of Fisheries & Wildlife
MassWildlife

Wayne F. MacCallum, *Director*

June 16, 2010

Paul Dethier
Town of Amherst, DPW
586 South Pleasant Street
Amherst, MA 01002

Re: Old Amherst Landfill Modifications
Old Belchertown Road
Map 21B, Parcel 8
Amherst, MA 01002
NHESP Tracking No. 10-27804

To Whom It May Concern:

The Natural Heritage & Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries & Wildlife on May 17, 2010 received a Review Checklist, site plans entitled " BWP SWLL Landfills Major Modification Permit" (dated 5/4/2010)" and supporting documentation for review pursuant to the MA Endangered Species Act Regulations (MESA, 321 CMR 10.18).

The NHESP reviewed the information provided in the filing and finds that additional information is required for us to continue our review of the proposed project pursuant to 321 CMR 10.00 (MESA):

- Confirmation that the Limits of Work (Or Modification Area Phases 1-3) include all construction, including but not limited to, grading and resurfacing. If not, please reflect changes in a revised plan.
- Confirmation that the proposed work within each phase area is current and represented (with Limits and Area Calculations). If not, please reflect changes in a revised plan and narrative. Mr. Dethier and David Paulson of NHESP consulted about potential changes over the phone.
- Rare Species Monitoring and Protection Plan. Please provide additional information on how the work areas will be adjusted (including distance buffers) if nesting grasshopper sparrows are documented.

After receiving the requested information, the NHESP will continue our review of the proposed project for compliance with the MESA.

The NHESP's review under MESA is ongoing. **No soil or vegetation disturbance, work, clearing, grading or other activities shall be conducted anywhere on this project site until the NHESP has completed its review.**

If you have any questions regarding this letter please contact David J. Paulson, NHESP Consulting Biologist, at: (508) 389-6366 (David.Paulson@state.ma.us).

Sincerely,

Thomas W. French

Thomas W. French, Ph.D.
Assistant Director

Town of Amherst
Department of Public Works

MASSACHUSETTS ENDANGERED SPECIES ACT (MESA) PROJECT REVIEW

FOR

LANDFILL MODIFICATIONS ASSOCIATES WITH

BWP SW11 LANDFILLS

MAJOR MODIFICATION PERMIT

OLD AMHERST LANDFILL

OLD BELCHERTOWN ROAD

AMHERST, MA 01002

PREPARED BY:

Town of Amherst
Department of Public Works
Engineering Division
586 South Pleasant Street
Amherst, Massachusetts, 01002
(413) 259-3152 · FAX (413) 259-2414

Town of Amherst
Department of Public Works

TABLE OF CONTENTS

Town of Amherst
Department of Public Works

SECTION 1

Cover Letters

Town Of

AMHERST *Massachusetts*

OFFICE OF THE SUPERINTENDENT OF PUBLIC WORKS
586 SOUTH PLEASANT STREET
AMHERST, MA 01002
TEL. 413-259-3050 FAX 413-259-2414

May 11, 2010

Regulatory Review
Division of Fisheries and Wildlife
Field Headquarters
One Rabbit Hill Road
Westborough, MA. 01581

RE: Old Amherst Landfill, Old Belchertown Road, Amherst, Ma.
NHESP Tracking No.: 10-27804
Town Project No. TP10-07

On behalf of the Town of Amherst Department of Public Works, we are filing for a MESA Project Review for the proposed work at the Town of Amherst Old Landfill, located at Old Belchertown Road in Amherst, Ma. We have included a completed application, required review fee, project plans and all additional required information.

This proposed project is in response to a Final Comprehensive Site Assessment (FCSA) Permit for the Old Amherst Landfill was submitted to the Department of Environmental Protection (MassDEP) on January 30, 2009. The FCSA report was completed by the engineering firm Tighe & Bond, Inc. 53 Southampton Road, Westfield, Ma. in an effort to assess the potential landfill impacts to human health, public safety and the environment.

MassDEP reviewed the report and approved the permit on April 6, 2010 (Permit Approval #10-008-001, BWPSW23, Transmittal #X226691). The approval letter, which has been attached in Section 7 of this application, identifies the corrective actions and maintenance activities that the Town must perform to mitigate potential site risks and impacts to human health, public safety and the environment.

The proposed project under MESA project review involves the implementation of the corrective actions to the landfill surface and the existing stormwater management system. Specifically, regrading the landfill surface to eliminate surface ponding which has resulted from differential settlement and maintenance of the drainage swales and stormwater basins to ensure they continue to function as originally designed. These corrective actions are being proposed under the MassDEP BWP SW11 Landfills-Major Modification Permit.

The Department of Public Works submitted an information request form for this site on January 26, 2010. Division of Fisheries and Wildlife determined that the project site and

areas impacted by the stormwater runoff from the project site, (Fort River, receiving waters) are located within Priority Habitat and Estimated habitat as indicated in the Massachusetts Natural Heritage Atlas (13th Edition).

If you have any questions, comments or would like additional information, please contact the Town of Amherst Department of Public Works Office at 413-259-3152.

Sincerely,

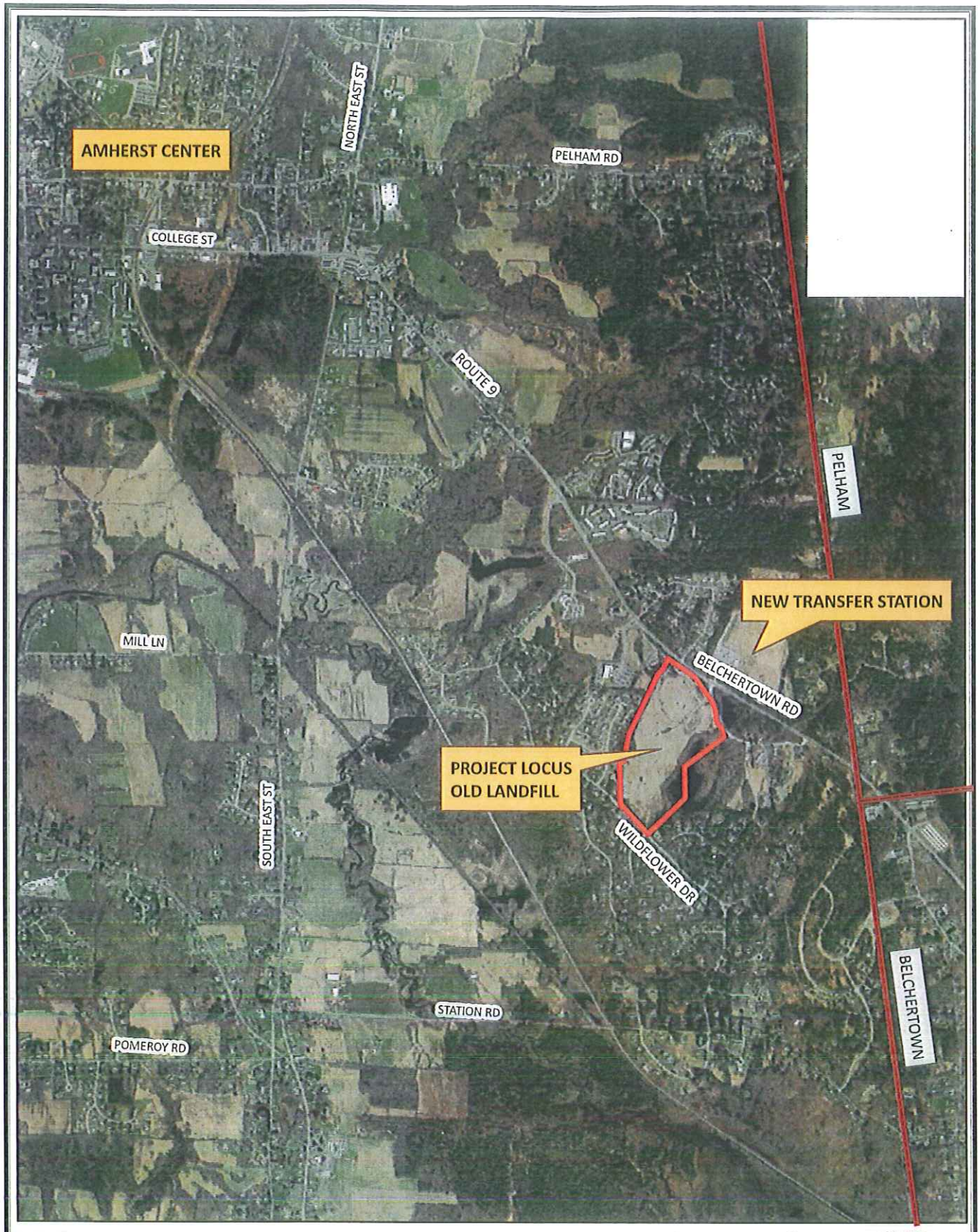
Paul Dethier
Engineering Division

Enclosed: MESA Project Review Form and MESA Project Review Narrative for BWP SW11 Landfills – Major Modification Permit
Check for $4000.00
Project Plan Set (cover and sheet 1-5)

Town of Amherst
Department of Public Works

SECTION 2

Locus Map



LOCUS MAP
OLD LANDFILL
OLD BELCHERTOWN ROAD
AMHERST, MA

N
W E
S

1 INCH = 2,000 FT

0 500 1,000 1,500 2,000
Feet

SOURCE: 2009 AMHERST ORTHOPHOTO
TOWN OF AMHERST GIS

PREPARED BY THE ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS, AMHERST, MA
FEBRUARY 4, 2010

Town of Amherst
Department of Public Works

SECTION 3

MESA Project Review Checklist and Project Narrative

MESA PROJECT REVIEW CHECKLIST

Massachusetts Endangered Species Act M.G.L. c. 131A and Regulations (321 CMR 10.00)

Massachusetts Division of Fisheries & Wildlife
Natural Heritage & Endangered Species Program

~~~~ CONTACT INFORMATION ~~~~

If you already completed your Notice of Intent- Form 3, you can send page 1 of the NOI in place of questions 1 through 4 in this section

1. **Project Location:**

Old Amherst Landfill, Old Belchertown Rd.	Amherst	01002
Street Address/Location	City/Town	Zip Code
21B	8	
Assessors Map/Plat Number	Parcel /Lot Number	

2. **Applicant:**

Town of Amherst, DPW		
First Name	Last Name	Company
586 South Pleasant Street		
Mailing Address		
Amherst	Ma.	01002
City/Town	State	Zip Code
413 259-3050	413 259-2414	01002
Phone Number	Fax Number	Email address

3. **Property owner (if different from applicant):**

Town Of Amherst		
First Name	Last Name	Company
4 Boltwood Avenue		
Mailing Address		
Amherst	Ma.	01002
City/Town	State	Zip Code
413 259-3333		
Phone Number	Fax Number	Email address

4. **Representative (if any):**

Town of Amherst DPW		
Company		
Paul Dethier		
Contact Person First Name	Contact Person Last Name	
586 South Pleasant Street		
Mailing Address		
Amherst	Ma.	01002
City/Town	State	Zip Code
413 259-3052	413 259-2414	dethierp@amherstma.gov
Phone Number	Fax Number	Email address

~~~~Additional Information~~~~

1. Will this project require a filing with the Conservation Commission and/or DEP? ☐ No ☑ Yes
2. Will this project meet any threshold for a MA Environmental Policy Act (MEPA) filing (excluding rare species, 301 CMR 11.03 (2))? ☐ No ☑ Yes
3. Has this project previously been issued a NHESP Tracking Number (either by previous NOI Submittal or MESA Information Request Form)? ☐ No ☑ Yes

If Yes - Tracking No. 10-27804

~~~~Project Description (attach separate sheet, as needed)~~~~

Please note, certain projects or activities are exempt from review, see 321 CMR 10.14. The MESA does not allow project segmentation. Your filing must reflect all anticipated work associated with the proposed project (CMR 321 10.16).

See attached narrative and plans

~~~~Include The Following Information~~~~

The NHESP will notify the applicant within 30 days if the materials submitted do not satisfy requirements for a filing and request submission of any missing materials (321 CMR 10.18(1)).

ALL Applicants must submit:

- ☑ USGS map (1:24,000 or 1:25,000) with property boundary clearly outlined
- ☑ Project plans for entire site (including wetland Resource Areas, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work)
- ☑ Assessor's map or right-of-way plan of site
- ☑ Project description
- ☑ Statement/proof that applicant is the Record Owner or that applicant is a person authorized in writing by the record owner to submit this filing
- ☑ Photographs representative of the site

Projects altering* 10 or more acres, must also submit:

- ☑ A vegetation cover type map of the site
- ☑ Project plans showing Priority Habitat boundaries

The NHESP may request additional information, such as, but not limited to, species and habitat surveys, wetland reports, soil map and reports, and stormwater management reports (321 CMR 10.16).

*Alteration: Any physical alteration of land, soils, drainage or destruction of plant life, see "Project or Activity" (321 CMR 10.02).

~~~~ FILING FEES ~~~~

See Fee Schedule below

a. Total MESA Fee Paid $4,000.00 b. Acreage of Disturbance* 26.34 c. Total Site Acreage 51.83

~~~~ REQUIRED SIGNATURES ~~~~

I hereby certify under the penalties of perjury that the foregoing MESA filing and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

Signature of Property Owner/Record Owner of Property — Date: 5/10/2010

Signature of Applicant (required, if different from Owner) — Date

Please send form, required information, and filing fee (payable to "Comm. of MA - NHESP") to:

Regulatory Review
Natural Heritage & Endangered Species Program
1 Rabbit Hill Road
Westborough, MA 01581

Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries & Wildlife

Questions regarding this form should be directed according to the county that the property is located:

Berkshire, Essex, Franklin, Hampshire, Hampden, Middlesex & Worcester Counties call: 508-389-6361
Barnstable, Bristol, Dukes, Nantucket, Norfolk, Plymouth & Suffolk Counties call: 508-389-6364

PROJECT REVIEWS 321 CMR 10.18			
Project Definition	**Project Criteria**	**Fee**	**Response Time**
Simple	Less than 5 acres of disturbance*	$ 300.00	60 days from determination of complete filing
Intermediate *(Moderate)*	5 to 20 acres of disturbance*	$ 1800.00	60 days from determination of complete filing
Complex	More than 20 acres of disturbance* or project requires wetlands variance	$ 4000.00	60 days from determination of complete filing
Linear	Projects greater than 1 mile in length.	$ 4000.00 per Priority Habitat intersected	60 days from determination of complete filing

* Disturbance means direct physical disturbance of the land surface or waterbody, soil and/or vegetation, if only a portion of the project site is located within Priority Habitat, indicate total area of disturbance for site as a whole.

THIS DOCUMENT CONTAINS ULTRAVIOLET FIBERS, A VOID STAIN FEATURE, AND A WATERMARK ON THE BACK

TOWN OF AMHERST
AMHERST, MA 01002

CHECK NO. 158553

53-248
118

158553 THE BANK OF WESTERN MASSACHUSETTS
29 State Street, P.O. Box 1950
Springfield, MA 01101 (413) 781-2265

VENDOR	CHECK DATE	CHECK AMOUNT
525	04/15/2010	$4,000.00

PAY ******4,000 DOLLARS AND NO CENTS

TO THE ORDER
COMMONWEALTH OF MASSACHUSETTS
NHESP
MA DIVISION OF FISH & WILDLIFE
WESTOBROUGH MA 01581

John P. Musante MP
TREASURER

⑈158553⑈ ⑆011802488⑆ 2100162175⑈

158553

)WN OF AMHERST

158553 T041510

INVOICE DATE	INVOICE NUMBER	INVOICE DESCRIPTION	NET INVOICE AMOUNT	PO NO.	VOUCHER
04/01/10	040110	DPW-FILING FEE COMPLEX PR	4,000.00	10001646	10014165

525 COMMONWEALTH OF MASSACHUSETTS 4,000.00 158553

INVOICE DATE	INVOICE NUMBER	INVOICE DESCRIPTION	NET INVOICE AMOUNT	PO NO.	

Project Narrative
Old Amherst Landfill
Old Belchertown Road, Amherst, Ma.

Site Description

The Old Landfill in Amherst, Hampshire County, *(Facility ID# SLF 008-001)* is located on Old Belchertown Road to the south of Belchertown Road (Route 9) and northeast of Wildflower Drive and contains approximately 51.83 acres. The property is owned and maintained by the Town of Amherst. The site assignment limits have not changed since the closure of the Old Amherst Landfill. Two surveys were completed and the plans recorded at the Hampshire County Registry of Deeds in Plan Book 130, Page 61 and Plan Book 186, Page 100. Historically, this location was in use as a landfill, recycling facility and an auto parts operation. Eventually the auto parts operation was relocated and the landfill was capped in 1988. Since that time, the site has been maintained as open space and local residents walk their dogs, sled or cross-country ski in the winter along the walking trails. (See Section 4, USGS Topographical Quadrangle Map)

Most of the site is situated within the Professional and Research Park (PRP) zoning district with a dedicated municipal land use. The southerly corner of the property is divided into the Low Density Residential (LDR), Neighborhood Residential (NR) and Outlying Residential (OR) zones. Residential developments primarily occur along the southern and western boundaries of the locus; however situated on the north side of Route 9 (Belchertown Road) is one Residential Development (NR). The current Transfer Station, 740 Belchertown Road, is zoned Low Density Residential (LDR). (See Section 4, Zoning Map, Tax parcel map, and Property Card)

The main access road into the site is gated and fenced although the majority of the site is not fenced. This access road is asphalt and comprises the only impervious area on the site. A gravel service road encircles the northern third of the property for town vehicle access to snow storage. Generally, except for the portion of the site north of the service road, the site slopes to the south and east; the steepest slopes being at the most southern portion of the site. When the landfill was in use, it consisted of three general waste disposal areas: a municipal (MSW) solid waste disposal area, a concrete and masonry demolition disposal area, and a wood and stump dump area. A variable depth clay soil barrier system was used to close and cap all waste disposal areas. The approved cap at the time of landfill closure consisted of:

- *Vegetative cover; turf grasses and wildflower mixture*
- *Top soil, minimum 2-inch depth*
- *Gravel drainage layer, minimum 4-inch depth*
- *Clay layer; minimum 6-inch depth*
- *Gravel grading layer; variable depth*
- *Existing cover material; variable depth*

Old Amherst Landfill entrance road from Old Belchertown Road
Looking Southwest into site

Eastern corner of Old Amherst Landfill
Looking South into site from Old Belchertown Road

Gravel service loop road
Looking North towards Northern corner of site

Gravel service loop road
Looking West towards Tanglewood Road

Vegetative cover consists of turf grasses and wildflowers with some wooded areas that border a residential development situated to the west and south of the locus. The original landfill closure plans required a planting mix of 40% Creeping Red Fescue, 30% Manhatten Perennial Rygrass, 15% Birds Foot Trefoil and 15% Landino Clover. The Town mows the grasses throughout the growing season and uses the site for snow storage in the winter.

Photograph taken from center of site looking North towards Old Belchertown Road

Stormwater runoff from this site is controlled through existing Best Management Practices which were constructed during the landfill closure in 1988. The stormwater system has been periodically maintained throughout the years but is currently in need of minor maintenance. The eastern edge of the Old Landfill site abuts a portion of Pomroy Pond (3.5± Ac.). This pond is surrounded by a wooded buffer area and does not receive direct (piped) stormwater discharges from the Old Landfill. The northern portion of the pond does however receive overland surface runoff from the eastern corner of the Old Landfill site. This runoff flows through a vast area of vegetated buffer and woodland area prior to entering the pond. Stormwater runoff flows from the northern corner of the site are collected in grass and rip-rap lined swales. The swales then direct the runoff into an existing stormwater basin adjacent to Belchertown Road. Runoff which is not infiltrated in this basin is then piped into the municipal drainage system eventually discharging in to the Fort River (approximately 1 mile from the landfill site). Hydrogeological studies of this site have shown the presence of a surficial aquifer underlying the site. (See Section 4, U.S. Waterways Map)

Southern corner of Old Amherst Landfill
Looking East into site from Wildflower Drive

Southwestern corner of Old Amherst Landfill, Stormwater basin in foreground
Looking North into site from Wildflower Drive

Edge of site adjacent to Belchertown Road
Looking East towards the Stormwater Basin and paved entrance roadway

The Town of Amherst Department of Public works has completed an MESA Information Request Form for the project site and for the areas subject to stormwater discharges. Based on the review, it has been determined that the site and areas impacted by the stormwater runoff from the site, (Fort River, receiving waters) are located within Priority Habitat and Estimated Habitat as indicated in the Massachusetts Natural Heritage Atlas (13th Edition). The following state-listed rare species have been found. (See Section 5, NHESP Priority Habitat of Rare Species Map and Division of Fish and Wildlife listing of state listed rare species)

Old Amherst Landfill - Priority Habitat 697 and 698

- *Ammodramus Savannarum*, Grasshopper Sparrow

Fort River – Priority Habitat 1337 and Estimated Habitat 76

- *Glyptemys Insculpta,* Wood Turtle
- *Alasmidonta Undulata,* Triangle Floater
- *Alsmidonta Heterodon,* Dwarf Wedgemussel
- *Strophitus Undulatus,* Creeper
- *Ligumia Nasuta,* Eastern Pondmussel
- *Stylurus Scudderi,* Zebra Clubtail

Site Compliance and MassDEP Filings

The Old Landfill property is owned and maintained by the Town of Amherst. Since the closure in 1988 the Town has maintained the site in compliance with MassDEP Solid Waste Regulations. No outstanding enforcement actions or compliance orders have been issued by MassDEP at this time.

A brief history of the filings and activities include the following:

- As part of the landfill closure process, monitoring wells were installed at various locations in the Old Landfill and to the west and southwest of the site. All wells, monitoring, sampling, modeling and required filings are up-to-date.

- Health and Safety plan developed in August 2005 to advise workers of any potential hazards and safe handling and working procedures.

- Initial Site Assessment was completed in January, 2006 and filed with the Massachusetts Department of Environmental Protection as SLF#06-008-001.

- An updated private well survey was completed in February, 2008 and submitted to the Massachusetts Department of Environmental Protection. The survey identified 24 private wells upgradient of the groundwater flow from the Old Amherst Landfill. The private consultant hired by the Town stated that "no private wells are likely to be impacted by groundwater quality at the landfill site."

- Additional wells were drilled and samples analyzed in 2008 and 2009. Soil borings and analyses were completed as part of the Final Comprehensive Site Assessment (FCSA) submission that identified Contaminants of Concern. Baseline Risk Assessment was performed in accordance with the MassDEP guidelines and is included in the FCSA.

- The Final Comprehensive Site Assessment Report was completed in January 2009 and filed as SLF#008-001.

- Final Site Assessment Permit Approval issued by MassDEP April 6, 2010, #10-008-001, transmittal #X226691

Final Site Assessment Permit Approval and Recommendations

The Final Comprehensive Site Assessment (FCSA) Permit for the Old Amherst Landfill was submitted to the Department of Environmental Protection (MassDEP) on January 30, 2009. The FCSA report was completed by the engineering firm Tighe & Bond, Inc. 53 Southampton Road, Westfield, Ma. This report evaluated and characterized the existing conditions at the closed landfill and assessed the potential landfill impacts to human health, public safety and the environment. In addition to this, the report outlined the corrective actions that would be needed to mitigate potential site risks and impacts that were identified in the report. A copy of Section 7 FCSA Conclusions &

Recommendations of this report has been included with this MESA project review submittal. (See Section 6)

The Final Comprehensive Site Assessment recommended a post-comprehensive site assessment monitoring program be implemented. This program would include continued groundwater monitoring, surface water monitoring and semi-annual perimeter soil gas monitoring. In addition to this monitoring, the assessment recommended surface cover improvements. Section 7.3 of the FCSA stated the following.

"Field observations of the surface cover at the Old Landfill indicate that the Town has adequately maintained the site since closure in accordance with the Massachusetts Solid Waste Regulations 310 CMR 19.000. However, differential settlement of the landfill surface since site closure in the early 1980s has resulted in scattered areas of poor surface drainage that result in the ponding of runoff on capped areas of the site."

Tighe & Bond, Inc. recommended that maintenance measures be implemented for both the landfill surface and the existing stormwater management system on the site.

Landfill Surface Maintenance

- *Re-establish 2% minimum landfill surface slope to the perimeter of the site or to the stormwater drainage swales and retention areas by placement of additional soil or alternative soil materials. Areas of surface ponding should be filled and eliminated. Area disturbed by the placement of soils should be provided with top soil and reseeded to establish a grass cover.*

Stormwater Management System Maintenance

- *Check the slope of drainage swales and correct any areas of ponding in the swales and/or remove obstructions. Remove silt accumulations from the bottom of retention basins to promote stormwater infiltration, as necessary*

MassDEP reviewed the FCSA report and approved the permit on April 6, 2010 (Permit Approval #10-008-001, BWPSW23, Transmittal #X226691). The approval letter, which has been attached in Section 7 of this MESA application, identifies the corrective actions and maintenance activities that the Town must perform to mitigate potential site risks and impacts to human health, public safety and the environment (page 8 of the approval letter). They are the following:

"8. *The Town shall perform the following activities at the landfill facility as described in 310 CMR 19.142, Landfill Post Closure Requirements, of the Solid Waste Management Facility Regulations, and as further specified in this permit:*

a) *Take all corrective actions to remediate and/or mitigate conditions that would compromise the integrity of the final cover;*
b) *Maintain the integrity of the final cover system;*
c) *Monitor and maintain the environmental monitoring systems for surface water, groundwater, and air quality;*

d) Maintain access road;
e) Maintain landfill gas control system; and
f) Protect and maintain surveyed benchmarks.

9. The post-closure maintenance program at the landfill shall be performed by the Town as required in 310 CMR 19.143, and shall include:

a) Cutting vegetation over the entire landfill, at a minimum frequency of once per year to prevent the establishment of deep rooted vegetation;
b) Semi-annual inspections for settlement and erosion;
c) Semi-annual inspections of stormwater drainage swales and retention basins for soil build up and periodic cleaning as necessary;
d) Repairs of the landfill cap, stormwater structures, or other landfill appurtenances; and
e) Maintenance of the access road such that the road remains passable to maintenance/repair vehicles.

10. All maintenance/repair of final cover system components or associated landfill appurtenances conducted as a result of storm damage, erosion, or other circumstances shall be summarized and reported by the Town to the MassDEP within thirty (30) days of the date of the repair/maintenance.

11. The Town shall submit an annual post-closure report, as required by 310 CMR 19.142 (6) Reporting Requirements, not later than February 15th of each year, which shall contain the following information for the previous calendar year:

a) Tabular summaries of all analytical and monitoring data performed during the year;
b) Laboratory data sheets for all sample analyses performed during the year;
c) A description of all post-closure maintenance and monitoring performed during the year; and
d) The updated private well survey results (to be performed every other calendar year).

12. Appropriate Health & Safety (H&S) measures shall be utilized for all assessment work at the landfill."

Ponding resulting from differential settling of landfill surface

Ponding resulting from differential settling of landfill surface

Ponding resulting from differential settling of landfill surface and drainage swale erosion (Looking Northwest to northern corner of site)

Erosion in drainage swale adjacent to gravel service road. Existing drainage structure in foreground has collapsed due to erosion (Drop Inlet#1)
(Looking Southwest)

Drop Inlet#1
(Looking Northeast)

BWP SW11 Landfills – Major Modification Permit and BWP SW40 Beneficial Use Determination Permit

In response to the recommendations of the Final Comprehensive Site Assessment Report and the MassDEP required corrective actions and maintenance, the Town of Amherst has prepared applications for a BWP SW11 Landfills – Major Modification Permit and an application for a BWP SW40 Beneficial Use Determination Permit to be filed with the Massachusetts Department of Environmental Protection. In addition to these permits the Town is currently preparing an U.S. Environmental Protection Agency NPDES General Permit (NOI) and a Stormwater Pollution Prevention Plan for the proposed work. The Town has also filed a Request for Advisory Opinion with the Massachusetts Environmental protection Office (MEPA) to determine if this required maintenance work may proceed without additional MEPA review.

BWP SW11 Landfills – Major Modification Permit Approval of this permit will allow the Town of Amherst Department of Public works to perform the work required to re-establish a 2% a minimum landfill surface slope, redefine the existing drainage swales, repair existing drainage structures, remove accumulated sediments from the existing stormwater basins and restore the existing service road located on the site. It is anticipated that this work will require approximately 67,670± CY of off-site material. Once this work is completed the landfill cover vegetation will be reestablished and the existing post-closure maintenance procedures will be continued.

BWP SW40 Beneficial Use Determination Permit Approval of this permit will allow the Town to use off-site fill materials from other locations within the Town in the proposed regrading of the Old Landfill site. The reuse of this material is in accordance with **310 CMR 19.00** ***(Solid Waste Management)*** and **MassDEP Policy #COMM-97-001** ***(Reuse & Disposal of Contaminated Soil at Massachusetts Landfills).*** The Old Amherst Landfill, is a MassDEP Regulated System (SLF#008-001)

Three sources of secondary materials are addressed in the Application are:

1. Contaminated soil from the Atkins Corner Roadway Project, located in south Amherst. (soil contains high concentrations of arsenic a result of previous agricultural use of land);
2. Street sweepings; and
3. Catch basin cleanings.

Proposed Landfill Modification

The proposed project under MESA project review involves the implementation of the corrective actions to the landfill surface and the existing stormwater management system. The grading and drainage work would be completed by Town employees from the Public Works Department under the supervision of the Superintendent of Public Works, Guilford B. Mooring, P.E., the Town Engineer, Jason Skeels, P.E., and staff, except where an independent contractor who is licensed to transport off-site fill material is required. Public health and safety and the environment will not be unduly affected by construction.

Site Plan Set
Cover Sheet
Existing Conditions, sheet1 of 5
Proposed Modification/Grading Plans, sheet 2 of 5
Proposed Modification/Grading Plans, sheet 3 of 5
Construction Phasing/Erosion Control Plan, sheet 4 of 5
Site Details, sheet 5 of 5

Construction Phasing
The proposed site modifications associated with this project have been designed to proceed in three distinct phases (See sheet 4 of 5 of site plans). The combined total area of the three phases is 26.34 acres. The intent of the phasing is to limit the area of disturbance on the site, retain greater areas of existing established vegetation and habitat, promote the rapid reestablishment of vegetation and habitat and reduce the potential for erosion and sedimentation. During the proposed alterations within each of these phases, the area of soil disturbance and newly graded area (work area) will be limited to approximately 1.75 acres at a time.

We expect that the proposed modification project will take a total of three years. Between April and October of each year it is our goal to grade and re-establish vegetation on a minimum of five 1.75 acre work areas. These five work areas will result in a total of approximately 8.78 acres completed a year. Phase 1 is expected to begin June 1, 2010. If the project must be extended due to weather conditions or other factors, the Town will apply for permit extensions.

Phase 1
Phase 1 of the project will be limited to approximately 9.82 acres located at the northern corner of the site. This area is divided by the existing circular service road and contains both grass and stone lined swales which direct runoff to the existing stormwater basin at the north east of the site, adjacent to Belchertown Road. The work within this phase will involve surface maintenance to improve positive drainage across the area, redefinition of the existing drainage swales, and the restoration of existing service road through the addition of gravel base material and a trap rock gravel surface. Additional work within

this phase will also include the deposition of both secondary off-site fill, clean fill material and top soil.

Phase I has been designed to receive approximately 41, 278 CY of fill. Of this amount, approximately 4,000 CY (receiving area has been sized for 5,385 CY) will be secondary material from the Atkins Corner Roadway project in Amherst, approximately 22,411 CY will be other secondary material including street sweepings and approximately 14,867 CY will be clean fill for leveling, sandy top soil and roadway surface material.

Contaminated soil from the Atkins Corner Roadway Project

The 4,000 CY of contaminated soil material from the Atkins Corner Roadway project in Amherst will be placed over the existing landfill clay cap, covered with clean fill and loam and finally will be seeded to restore the surface to preconstruction cover characteristics. The contaminated soil material from the Atkins Corner Roadway project will only be deposited in Phase 1 of this project. (See sheet 5 of 5 for cross-sectional detail)

Arsenic is a stable, relatively immobile compound and does not degrade readily. The landfill clay cap on which the material will be placed will inhibit infiltration of precipitation into the soils below the landfill. The clean fill cover material will further isolate the contaminated soil from potential exposure. Therefore, the chemical characteristics of arsenic, consolidation of the contaminated soil and the presence of the physical barriers (clay cap and clean fill material) will prevent the exposure to, and the mobilization of the arsenic. Additional information evaluating the risk of harm to health, safety, public welfare and the environment from the disposal of this soil in the Old Amherst Landfill has been include in a Risk Assessment performed by the Town. (See Section 9, Risk Assessment)

Specific guidelines for the on-site handling of this material have been addressed in the Supplemental Operation and Maintenance Plan, Section 10 of this application. In addition to this, the potential threats to human health and the environment will also be minimized through careful management and adherence to all local, state and federal guidelines for handling of contaminated soil.

Sequence of Construction, Phase 1

- Install sedimentation fencing and fiber roll at perimeter of Phase 1
- Modify existing stormwater basin to function as sedimentation basin
- Rebuild/recondition existing drop inlet (DI#1) and install inlet sediment control device
- Install new 12" RCP culvert under existing service road
- Regrade existing roadway swales and install hay bale barriers to control sediments
- Improve existing service roadway (regrade and install additional gravel and trap road surface)

- Raise existing Gas Vents by adding full section of PVC pipe (to be cut back to 18" above finished grade once grading is complete)
- Mow existing grasses and wildflowers to within 3" of surface
- Install of site secondary fill materials as shown on plan
- Install clean fill for site leveling and regrade material as shown on proposed grading plan
- Install min. of 4" top topsoil and seed all disturbed areas.
- Adjust Gas Vents to extend 18" above finished grade
- Maintain temporary sedimentation controls and sedimentation basin for Phase 2

Phase 2

Phase 2 of the project will be limited to approximately 4.46 acres located at the northwest edge of the site. The work within this phase will involve surface maintenance to improve positive drainage across the area, regrading of the existing grass swales at the eastern edge of the area, and deposition of both secondary off-site fill and clean fill material. Phase 2 has been designed to receive approximately 14,656 CY of fill. Of this amount, approximately 7,460 CY will be secondary material, and approximately 7,196 CY will be clean fill for leveling and sandy top soil material.

Sequence of Construction, Phase 2

- Install sedimentation fencing and fiber roll at perimeter of Phase 2
- Maintain temporary sedimentation controls and sedimentation basin
- Raise existing Gas Vents by adding full section of PVC pipe (to be cut back to 18" above finished grade once grading is complete)
- Mow existing grasses and wildflowers to within 3" of surface
- Install of site secondary fill materials as shown on plan
- Install clean fill for site leveling and regrade material as shown on proposed grading plan
- Install min. of 4" top topsoil and seed all disturbed areas.
- Adjust Gas Vents to extend 18" above finished grade
- Remove temporary sedimentation controls for Phase 1 and 2
- Remove accumulated sediments from sedimentation basin, reseed and remove temporary 15" standpipe at outlet

Phase 3

Phase 3 of the project will be limited to approximately 12.06 acres located at the southern section of the site. The work within this phase will be limited to surface maintenance and will include restoring the surface slopes to eliminate the existing ponding of rainwater. In addition, the existing grass swales will be regraded to direct water flow to the existing stone lined channels which discharge to the stormwater basin at the south portion of the site.

Phase 3 has been designed to receive approximately 11,736 CY of fill. Of this amount, approximately 3,952 CY will be clean fill for leveling and 7,784 CY will be sandy top soil material.

Sequence of Construction, Phase 3

- Install sedimentation fencing and fiber roll at perimeter of Phase 3
- Mow existing grasses and wildflowers to within 3" of surface
- Install clean fill for site leveling and regrade material as shown on proposed grading plan
- Install min. of 4" top topsoil and seed all disturbed areas.
- Remove temporary sedimentation controls for Phase 3

Erosion Controls

Temporary erosions and sedimentation control measures will be employed during the construction and include the use of hay bales, erosion control fiber rolls, sedimentation fencing, vegetative buffer areas and a temporary sedimentation basin. The sedimentation basin will result from the changes to an existing stormwater basin located adjacent to the entrance road (north edge of project site). A modification will be made existing outlet structure to enable this basin to temporarily function as a sedimentation basin during Phase 1 and 2 of the project.

All temporary erosions and sedimentation control measures shall be installed for each phase prior to the commencement of any work within that phase. Below is a list of the temporary measures that will be utilized for each phase.

Phase 1

- Hay Bale barriers
- Erosion Control fiber rolls
- Sedimentation fencing
- Installation of inlet sediment control device on drop inlet
- Vegetative buffer areas
- Modifications to outlet of existing stormwater basin to enable basin to function as temporary sedimentation basin (adjacent to entrance road)

Phase 2

- Hay Bale barriers
- Erosion Control fiber rolls
- Sedimentation fencing
- Vegetative buffer areas
- Temporary Sedimentation basin (modified in phase 1)

Phase 3

- Hay Bale barriers

- Erosion Control fiber rolls
- Sedimentation fencing
- Vegetative buffer areas

Re-establishment of Landfill Surface Vegetation

All disturbed areas, with the exception of the service road and rip-rap swales, will receive a minimum of 4" of sandy top soil. Lime will then be applied at a rate of 50LBS per 1000 SF followed by an application of 10-20-100 fertilizer at a rate of 30LBS per 1000 SF. The disturbed areas will then be seeded with 'New England Warm Season Grass Mix' supplied by New England Wetland Plants, Inc. 820 West Street, Amherst, Ma. (413) 584-8000. This seed mix is a combination of the following grasses.

- *Andropogon geradii,* Big Bluestem
- *Elymus virginicus,* Virginia Wild Rye
- *Festuca rubra,* Creeping Red Fescue
- *Panicum virgatum*, Switch Grass
- *Schizachyrium scoparium,* Little Bluestem
- *Sorghastrum nutans,* Indian Grass

After the seed mixture is spread, the areas will be mulched with hay at the rates of 40LBS per 1000SF for slopes less than 3:1 and 70LBS per 1000SF for slopes greater than 3:1.

NEW ENGLAND WETLAND PLANTS, inc

820 West StreetÂ
Amherst, MA 01002
Phone:413-548-8000
Fax:413-549-4000
email:info@newp.com
web address:www.newp.com

2009 New England Warm Season Grass Mix

Botanical Name	Common Name	Ind.
Andropogon gerardii	Big Bluestem	FAC
Elymus virginicus	Virginia Wild Rye	FACW-
Festuca rubra	Creeping Red Fescue	FACU
Panicum virgatum	Switch Grass	FAC
Schizachyrium scoparium	Little Bluestem	FACU
Sorghastrum nutans	Indian Grass	UPL

Price per lb.	$18.00
Min. quantity:	3 lbs.
Total	$54.00
Apply: 23 lbs/acre	
Minimum quantity: 3 lbs	

The New England Native Warm Season Grass Mix contains a broad spectrum of native warm season grasses to ensure that a variety of the species will survive in the sandy and droughty conditions typically found along roadsides, gravel mine reclamation areas, and other low-fertility well-drained soil conditions. This mix is somewhat slow to germinate and establish during the first year of planting, but it will produce good cover by the end of the second growing season to produce long-living native stands. The cool season grasses, Red Fescue and Wild Rye have been added as a starte seed for erosion control. This mix has excellent heat and drought tolerance, and grows well in well-drained soils. Warm season grasses provide excellent year-round cover and food for wildlife, particularly as winter cover for small animals. Always apply on clean bare soil. The mix may be applied by hydro-seeding, by mechanical spreader, or on small sites it can be spread by hand. Lightly rake, or roll to ensure proper soil-seed contact. Best results are obtained with a Spring seeding. Late Spring and Summer seeding will benefit with a light mulching of weed-free straw to conserve moisture. If conditions are drier than usual, watering may be required. Late Fall and Winter dormant seeding require an increase in the seeding rate. Fertilization is not required unless the soils are particularly infertile. Preparation of a clean weed free soil surface is necessary for optimal results.

New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is $/bulk pound, FOB warehouse, plus S&H and applicable taxes.

Modification to Existing Stormwater Basin

The two existing stormwater basins located on the project site were designed and sized as part of the Amherst Sanitary Landfill Close-Out Project dated 1986. By modifying the existing basin at the north edge of the site, it will be possible to limit additional site disturbances which would result from the excavation for a new sedimentation basin. (This existing basin is shown as Pond 4 in the HydroCAD routing diagram, see Section 7)

The proposed soil disturbances within the 11.66 acres that drain to the existing basin (Pond 4) will be limited to 1.75 acres at a time. The EPA requires that sedimentation basins be designed to provide storage for the 2-year 24 hour storm or 3,600 cubic feet of storage per acre drained. The modification of this basin combined with the additional temporary erosions and sedimentation control measures previously listed will enhance the capture of sediments from the runoff leaving the site.

To ensure that the required volume can be provided by the basin, it will first be restored to its original designed depth as shown on the 1986 design plans. This will be accomplished by excavating years of accumulated sediments from the bottom of the basin and regrading the bottom so that the stormwater will be directed to the outlet pipe. The current basin outlet will then be retrofitted with a 15" diameter stand pipe to control the basin discharge. This will allow the sediment laden runoff to be detained while the sediment settles to the bottom of the pond. This retrofitted stand pipe will result in a 6" sediment storage zone and a 2.5' settling zone. The invert of the stand pipe will be elevation 263.90 which will allow for a water storage volume of approximately 32,892 cubic feet during the 2.9" rain fall event (type III 24 hour 2 year storm). Eight ½" diameter dewatering holes will be bored into the stand pipe and washed stone will be placed around the pipe to act as a filter to prevent sediment from leaving the basin. The dewatering holes will enable the basin to drain down over a 52 hour period. Sediment levels will be monitored during construction and the basin will be cleaned when the levels reach 6" deep.

Sedimentation Basin Calculations

MassDOT Sedimentation Basin Sizing
V=1815A
V=Volume of Basin, C.F.
A=Drainage Area, AC
1815= Volume (in C.F.) of 0.5" of runoff per acre
V=1815(11.66)
V=21,163 C.F. storage (Existing basin results in 32,892 C.F.)

EPA Sedimentation Basin Sizing
3,600 C.F. Storage per Acre recommended
3,600(11.66)= 41,976 C.F. storage (Existing basin results in 32,892 C.F.)
Or

Storage for the 2-year 24-hour storm
HydroCad results for 2-year storm (2.9" rainfall event) = 32,892 C.F. storage required
(Existing Basin results in 32,892 C.F., 2.9" rainfall event)

Sizing of Dewatering Holes
A=(ax(2h))/(TxCx20,428)
A=Total surface area of dewatering holes, S.F.
a=Surface area of the basin, S.F.
h=Head of water above holes, FT.
C=Coefficient of contraction for an orifice, approx. 0.6
T=detention time or time needed to dewater the basin, hours
A=16,800x(2x2.5)/52x0.6x20428
A=0.13 S.F (Provided (8) 1/2" dia. Holes=0.13 S.F.)

Sediment Trapping Efficiency
(The Following equation gives trapping efficiency greater than 75%)
A=0.01q
A=Basin Surface Area, AC
q=Peak Inflow Rate, CFS
A=0.01(10.63)
A=0.1063 AC (Existing basin surface area results in 0.385 AC)

Supplemental Operation and Maintenance Plan

A Supplemental Operation and Maintenance Plan has been generated to address the activities associated with the proposed Landfill modifications. This Operation and Maintenance Plan shall be used as a supplement to the existing Operation and Maintenance Plan and addresses activities related to the reuse of contaminated soil and Secondary Material for grading material at the Old Amherst Landfill. In addition to the minimum required post-closure activities set forth in 310 CMR 19.143 and based on prior management and operational experience, the Town of Amherst has developed additional routine maintenance activities and inspections. The overall care, maintenance and responsibility for the Old Amherst landfill shall be under the direction of the Town of Amherst Department of Public Works, a qualified operator. (See Section 10, Supplemental Operation and Maintenance Plan)

Project Impacts and Mitigation Measures

After review of the Final Comprehensive Site Assessment Report and Application, MassDEP provided a detailed determination for the Old Amherst Landfill. This determination identified specific measures and maintenance activities that the Town of Amherst will be required to perform on this site in order to maintain the integrity of the final landfill cover system. From this information the Department of Public Works, Engineering Division, has prepared design plans and is in the process of securing the required permits to enable the implementation of the corrective actions to the landfill surface, stormwater management system, and other landfill appurtenances.

Due to the location of the project site within Priority Habitat and Estimated Habitat as indicated in the Massachusetts Natural Heritage Atlas (13th Edition), special attention has been devoted to the design and the phasing of the proposed work. The construction schedule and timing of required maintenance activities has also been adjusted in an effort to avoid unnecessary environmental impacts.

Priority Habitat 697 and 698

The Division of Fisheries & Wildlife has determined that the project site is located within Priority Habitat 697 and 698, and that state listed rare species *Ammodramus Savannarum* (Grasshopper Sparrow) have been found in the vicinity of the site. The Grasshopper Sparrow can be found in sandplains, grasslands, pastures, hayfields and airfields characterized by bunch grasses. They require patchy grassland habitat with bare ground and bunches of grasses, bluestem and fescue. The sparrow arrives in Massachusetts in late May of each year. Males lay claim to 1-4 acres exclusive non-overlapping territory. Breeding activities occur in the summer and diminish by mid-August and the sparrow migrates for wintering by mid-September.

The corrective actions required on this site cannot be completed without direct disturbance to areas of existing vegetative cover on the Landfill site. The following measures will be implemented to minimize disturbance to the rare species and habitat:

Project Phasing

The proposed project has been designed to be implemented in three phases. The intent of the phasing is to limit the area of disturbance on the site, retain greater areas of existing established vegetation and habitat, promote the rapid reestablishment of vegetation and habitat and reduce the potential for erosion and sedimentation. During the proposed alterations within each of these phases, the area of soil disturbance and newly graded area will be limited to approximately 1.75 acres at a time. This project as proposed would limit the temporary loss of grassland habitat for this threatened species to 1.75 acres at a time on the 51.82 acres site. It should also be noted that the Amherst Transfer Station located at 740 Belchertown Road is approximately 400' from the project site and is also located within Priority Habitat 697 and 698. The Transfer Station parcel is approximately 56 acres of similar vegetative cover and habitat.

Rare Species Monitoring

The Town of Amherst has an opportunity to consult with local bird expert Mr. Harvey Allen during the implementation of this project. Mr. Allen would be willing to inform the Department of Public Works to the arrival of the Grasshopper Sparrow in the spring, identify current nesting sites that may be located within the impending work area, and provide information on the departure of the sparrow in the fall. The information provided to the Town would allow the Department of Public Works to adjust the physical location of the work areas within each phase of the project as well as make adjustments to the timing of the grading and seeding work to prevent unnecessary disturbance to the Grasshopper Sparrows.

Restoration of Habitat

In telephone conversations with The Division of Fisheries & Wildlife about this project, the Town was advised to utilize a sandy loam top soil mix on the site and then to seed with a New England Warm Season Grass Mix. This combination is preferred by the Grasshopper Sparrow and will be beneficial in restoring the disturbed habitat. It has been noted on the plan that all disturbed areas, with the exception of the service road and rip-rap swales, will receive a minimum of 4" of sandy top soil. Lime, fertilizer and would then be seeded with a 'New England Warm Season Grass Mix'.

Priority Habitat 1337 and Estimated Habitat 76

The Division of Fisheries & Wildlife has determined that the areas impacted by the stormwater runoff from the Old Landfill site, (Fort River, receiving waters) are located within Priority Habitat 1337 and Estimated Habitat 76. The following state-listed rare species have been found in the vicinity of the Fort River.

- *Glyptemys Insculpta,* Wood Turtle
- *Alasmidonta Undulata,* Triangle Floater
- *Alsmidonta Heterodon,* Dwarf Wedgemussel
- *Strophitus Undulatus,* Creeper
- *Ligumia Nasuta,* Eastern Pondmussel
- *Stylurus Scudderi,* Zebra Clubtail

The required work on the Old Landfill Site has the potential to impact off-site Priority Habitats and Estimated Habitats due to a hydrological connection. Runoff that is not completely infiltrated on the site may eventually flow into the Fort River. Due to this connection, the project includes Best Management Practices which will limit the potential for transportation of sediments from the site and control water quality. The following measures have been implemented:

Restoration of Existing Stormwater System

The existing stormwater system located on the project site was designed and sized in conjunction with the Amherst Sanitary Landfill Close-Out Project dated 1986. The work associated with this project includes restoring this system by removing accumulated sediments from the swales and basins, re-establishing swale and basin grades, and

rebuilding damaged drainage structures. This work will allow them to function as originally designed.

Temporary Erosions Measures During Construction

Temporary erosions and sedimentation control measures will be employed during the construction and include the use of hay bales, erosion control fiber rolls, sedimentation fencing, vegetative buffer areas and a temporary sedimentation basin. The sedimentation basin will result from the changes to an existing stormwater basin located adjacent to the entrance road (north edge of project site). A modification will be made existing outlet structure to enable this basin to temporarily function as a sedimentation basin during Phase 1 and 2 of the project. All temporary erosions and sedimentation control measures shall be installed for each phase prior to the commencement of any work within that phase.

Supplemental Operation and Maintenance Plan

A Supplemental Operation and Maintenance Plan has been generated to address the activities associated with the proposed Landfill modifications. This document identifies the components of the Stormwater System, the maintenance and inspection activities required for each component, as well as the responsibly party. Included in this document is also a Site Inspection Report which will be completed and recorded with the Town. This Operation and Maintenance Plan shall be used as a supplement to the existing Operation and Maintenance Plan for the site.

Stormwater Pollution Prevention Plan

The Town of Amherst has prepared a Stormwater Pollution Prevention Plan for this site to be submitted with the U.S. Environmental Protection Agency. This plan identifies the Town as the operator and owner of the site. It also describes the project and lists the Erosion and Sediment Control BMPs, Good Housekeeping BMPs, and Post-Construction BMPs. The plan describes the installation procedures for each BMP as well as the required maintenance activities and inspections needed both during and after construction.

MassDEP Mandated Monitoring and Reporting

As stated in the MassDEP permit approval letter dated, April 6, 2010, the Town shall be responsible for continued groundwater sampling, surface water sampling, gas well monitoring on and around the Old Landfill site. The Town shall be responsible for providing tabular summaries of all analytical and monitoring data, laboratory data sheets, and a description of all post closure maintenance and monitoring performed during the year.

Secondary Material Use On An Existing Regulated Site

The reuse of contaminated soil and secondary material as fill material will be permitted through a BWP SW40 Beneficial Use Determination Permit. The reuse of this material is in accordance with 310 CMR 19.00 *(Solid Waste Management)* and MassDEP Policy #COMM-97-001 *(Reuse & Disposal of Contaminated Soil at Massachusetts Landfills)*.

The Town completed a Risk Assessment evaluating the risk of harm to health, safety, public welfare and the environment. This assessment concluded that depositing the contaminated soils at the Old Amherst Landfill poses No Significant Risk of Harm to Human Health, Public Welfare and the Environment. The use of this soil at the Old Amherst Landfill constitutes abatement of the development of an imminent hazard to human health and the environment by removal of the contaminated soil to a protected and regulated location. Disposal of the contaminated soil at the Old Landfill is also expeditious and cost-effective for the Town.

The use of the soil from the Atkins Corner Roadway project in Amherst will be consolidated into only Phase 1 of the project. The project has been designed to utilize the existing landfill clay cap and clean fill cover material as physical barriers. These barriers will prevent potential exposure to the soil, inhibit infiltration of precipitation, and also prevent the possibility of mobilization of the arsenic.

A Supplemental Operation and Maintenance Plan has also been prepared to address the activities associated with the handling and deposition of the soil. In addition to this, the potential threats to human health and the environment will also be minimized through careful management and adherence to all local, state and federal guidelines for handling of contaminated soil.

Conclusion

This proposed project is in response to a Final Comprehensive Site Assessment (FCSA) Permit for the Old Amherst Landfill was submitted to the Department of Environmental Protection (MassDEP) on January 30, 2009. The FCSA report was completed by the engineering firm Tighe & Bond, Inc. 53 Southampton Road, Westfield, Ma. in an effort to assess the potential landfill impacts to human health, public safety and the environment. MassDEP reviewed the report and approved the permit on April 6, 2010 (Permit Approval #10-008-001, BWPSW23, Transmittal #X226691). The approval letter identified the corrective actions and maintenance activities that the Town will be required to perform on this site in order to maintain the integrity of the final landfill cover system.

The Department of Public Works Engineering Division has prepared the project plans and is in the process of securing the required permits. The project has been designed to limit disturbance to the landfill surface and existing habitat and also quickly re-establish vegetation cover and habitat. This project proposes only limited temporary impacts to the Priority Habitat located on the Old Landfill site. Once this project is completed the landfill vegetation and habitat will be reestablished and the current site maintenance practices will resume.